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**west virginia** department of environmental protection

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Office of Oil and Gas  
601 57th Street SE  
Charleston, WV 25304  
(304) 926-0450  
(304) 926-0452 fax

Earl Ray Tomblin, Governor  
Randy C. Huffman, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

September 19, 2014

**WELL WORK PLUGGING PERMIT**

**Plugging**

This permit, API Well Number: 47-8100591, issued to EXCO RESOURCES (PA), LLC, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. The above named operator will also file, as required in WV Code 22-6-23, an affidavit on form WR-38 by two experienced persons in the operator's employment and the Oil and Gas inspector that the work authorized under this permit was performed and a description given. Failure to abide by all statutory and regulatory provisions governing all duties and operations here under may result in suspensions or revocation of this permit and in addition may result in civil and/or criminal penalties being imposed upon the operator.

This permit will expire in two (2) years from date of issue. If there are any questions, please free to contact me at (304) 926-0499 ext. 1654.

James Martin  
Chief

Operator's Well No: AR-9  
Farm Name: NEW RIVER CO.  
**API Well Number: 47-8100591**  
**Permit Type: Plugging**  
Date Issued: 09/19/2014

**Promoting a healthy environment.**

**09/19/2014**

## PERMIT CONDITIONS

West Virginia Code § 22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

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### CONDITIONS

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1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.

1) Date \_\_\_\_\_, 20\_\_\_\_  
2) Operator's  
Well No. New River AR-9  
3) API Well No. 47-081 - 0591

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) Well Type: Oil \_\_\_\_ / Gas X / Liquid injection \_\_\_\_ / Waste disposal \_\_\_\_ /  
(If "Gas, Production \_\_\_\_ or Underground storage \_\_\_\_) Deep \_\_\_\_ / Shallow X

5) Location: Elevation 2356 Watershed Cramberry Creek  
District Town 6 County Raleigh 6' Quadrangle Beckley 7.5 234

6) Well Operator Exco Resources (PA), LLC 7) Designated Agent Diana Stampler  
Address PO Box 8 Address CT Corporation Systems  
Ravenswood, WV 26164 5400 D Big Tyler Rd, Chas, WV 25301

8) Oil and Gas Inspector to be notified Name Gary Kennedy  
Address PO BOX 268  
Nimitz, WV 25978  
9) Plugging Contractor Name R&R Well Service  
Address 4026 Clay Rd.  
Spencer, WV 25276

10) Work Order: The work order for the manner of plugging this well is as follows:  
Well was plugged back to 1371" upon drilling. RIH check TD to +or- 1371' Rig up tubing to TD and load hole with 6% Gel. Rig up and pump 30 sks Class A cement from TD to 971, WOC for 8hrs.  
RIH tag top of cement at 971', add and additional class A cement to achieve 971' TOC  
RIH, freepoint and cut 4 1/2 csg at +or - 945' and pull 4 1/2 casing  
RIH with tubing to +or- 945' and pump 35 sks of class A cement 945' to 768", pull tubing to 500'  
Rig up and pump <sup>?</sup> 35 sks class A cement 500' to <sup>190'</sup> 323', pull tubing to 180' and pump <sup>?</sup> 35 sks class A cement 180' to surface. *COVER BECKLEY COAL WITH CLASS A CEMENT*

Keep gel between all cement plugs. Erect monument with <sup>O&AP#</sup> \_\_\_\_\_, reclaim road and location.

*DRILLING REPORT SHOWS COAL @ 180' MUST COVER.*

RECEIVED  
Office of Oil and Gas  
AUG 18 2014  
WV Department of  
Environmental Protection

Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector *Gary Kennedy* Date 8/11/14



Revised 7/14/83

IV-35  
(Rev 8-81)

Date July 22, 1982  
Operator's  
Well No. #9 - AR  
Farm New River  
API No. 47 - 081 - 591

State of West Virginia  
Department of Mines  
Oil and Gas Division

WELL OPERATOR'S REPORT  
OF  
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil \_\_\_ / Gas x / Liquid Injection \_\_\_ / Waste Disposal \_\_\_ /  
(If "Gas," Production x / Underground Storage \_\_\_ / Deep \_\_\_ / Shallow x /)

LOCATION: Elevation: 2356' Watershed Cranberry Creek  
District: Town County Raleigh Quadrangle Beckley 7 1/2'

COMPANY Peake Operating Company  
ADDRESS 423 Charleston Natl Plaza, Charleston, WV 25301  
DESIGNATED AGENT Floyd B. Wilcox  
ADDRESS Same  
SURFACE OWNER New River Land Co.  
ADDRESS Mt. Hope, WV  
MINERAL RIGHTS OWNER same  
ADDRESS same  
OIL AND GAS INSPECTOR FOR THIS WORK D. Craig Duckworth ADDRESS Mt. Lookout, WV  
PERMIT ISSUED April 1, 1982  
DRILLING COMMENCED June 21, 1982  
DRILLING COMPLETED June 24, 1982  
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON \_\_\_\_\_

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.	11	11	3 SKS
13-10"			
9 5/8			
8 5/8			
7	900'	900'	250 SKS
5 1/2			
4 1/2		1371'	45 SKS
3			
2 3/8		1350'	
Liners used			

GEOLOGICAL TARGET FORMATION Big Lime Depth 2421 - 2661 feet KB  
Depth of completed well 2661 KB feet Rotary x / Cable Tools \_\_\_\_\_  
Water strata depth: Fresh 150' feet; Salt \_\_\_\_\_ feet  
Coal seam depths: \_\_\_\_\_ Is coal being mined in the area? NO

OPEN FLOW DATA  
Producing formation Ravencliff Pay zone depth 1259 - 1342 feet KB  
Gas: Initial open flow 900 Mcf/d Oil: Initial open flow -- Bbl/d  
Final open flow 660 Mcf/d 3 hrs Final open flow -- Bbl/d  
Time of open flow between initial and final tests 3 hours  
Static rock pressure 165 psig (surface measurement) after 21 hours shut in  
(If applicable due to multiple completion--)  
Second producing formation \_\_\_\_\_ Pay zone depth \_\_\_\_\_ feet  
Gas: Initial open flow \_\_\_\_\_ Mcf/d Oil: Initial open flow -- Bbl/d  
Final open flow \_\_\_\_\_ Mcf/d Oil: Final open flow AUG 1-7 2014 Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ hours  
Static rock pressure \_\_\_\_\_ psig (surface measurement) after \_\_\_\_\_ hours shut in  
Office of Oil and Gas  
WV Dept. of Environmental Protection

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(Continue on reverse side)

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Well was not stimulated.

WR-35

WELL LOG

Depths from DF 4' above GL

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Sand & shale			0	971	Water at 150' 1 gal/min.
Sandstone			971	1010	
Sandy shale			1010	1066	
Princeton			1066	1123	
Shale			1123	1259	
Ravencliff			1259	1342	Gas Checks: 1270' smell of gas, TSTM
Shale			1342	1360	1323' 116/10 W 2" = 452 MCF
Avis Lime			1360	1396	1352' 4/10 in 6-3/8" = 900 MCF
Sand & shale			1396	2264	1798' 4/10 in 6-3/8" = 900 MCF
Little Lime			2264	2362	1832' 4/10 in 6-3/8" = 900 MCF
Pencil Cave			2362	2421	2440' 20/10 M 2" = 696 MCF
Big Lime			2421	2661	2590' 20/10 M 2" = 696 MCF
TD			2661		2661' 20/10 M 2" = 696 MCF

(Attach separate sheets as necessary)

Peake Operating Company

Well Operator

By: *Thayer B. Nelson*

Date: *July 23, 1982*

09/19/2014

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Note: Regulation 2.02(i) provides as follows:

"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."

AUG 13 2014

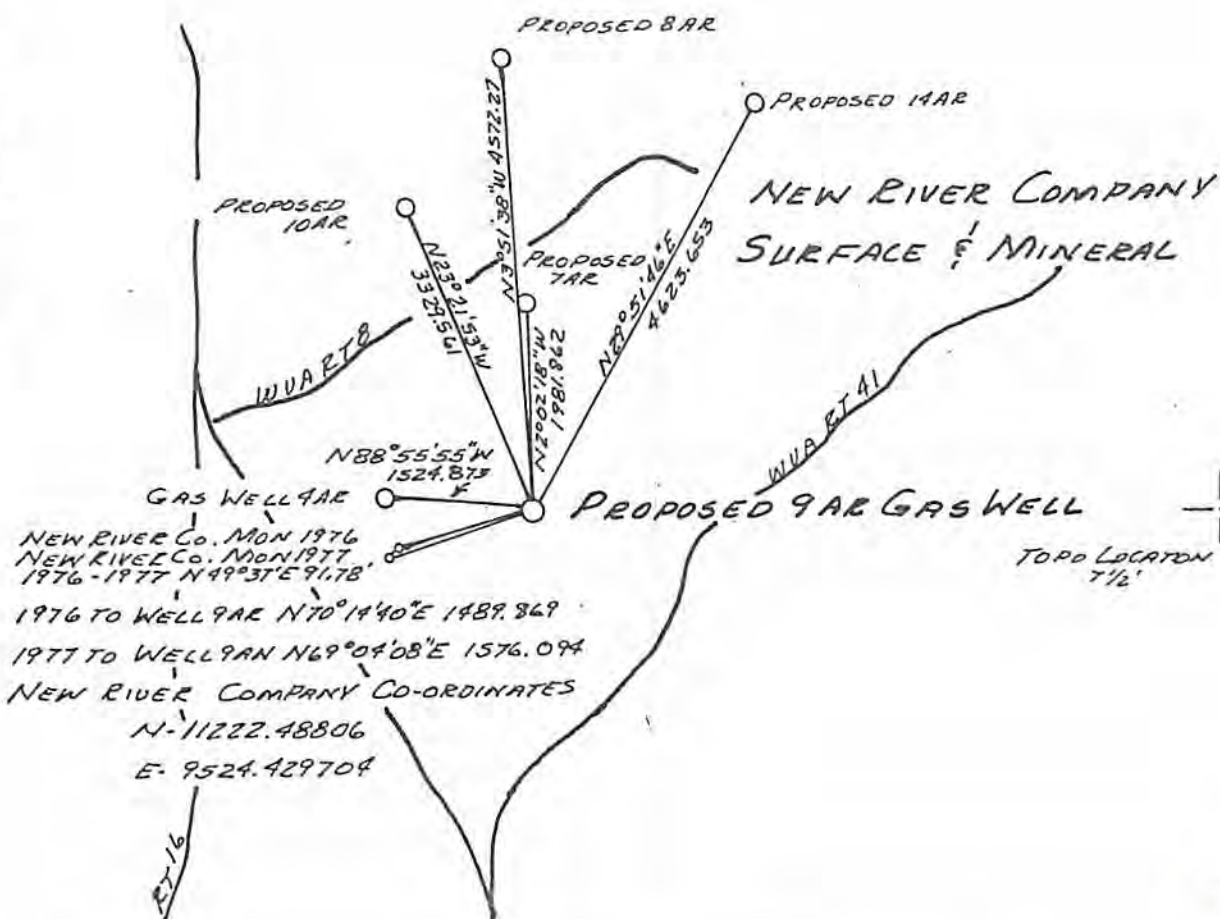
Office of Oil and Gas  
Department of Environmental Protection

8100591 P

LATITUDE 37°50'00"

LONGITUDE 81°10'00"

NORTH



NEW RIVER Co. MON 1976  
 NEW RIVER Co. MON 1977  
 1976-1977 N 49° 31' E 91.78'  
 1976 TO WELL 9AR N 70° 14' 40" E 1489.869  
 1977 TO WELL 9AR N 69° 04' 08" E 1576.094  
 NEW RIVER COMPANY CO-ORDINATES  
 N-11222.48806  
 E-9524.429704

FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1-2000  
 MINIMUM DEGREE OF ACCURACY 1-10000  
 PROVEN SOURCE OF ELEVATION 2328 WELL NO 4AR

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES.  
 (SIGNED) Bryant W. Bowman  
 R.P.E. \_\_\_\_\_ L.L.S. 736



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
 FORM IV-6  
 (8-78)



Department of Mines  
 Oil & Gas Division

DATE 2/27, 19 82  
 OPERATOR'S WELL NO. 9AR  
 API WELL NO. 47  
 STATE COUNTY PERMIT

Received

WELL TYPE: OIL \_\_\_\_\_ GAS  LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_  
 (IF "GAS", PRODUCTION \_\_\_\_\_ STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW   
 LOCATION: ELEVATION 2356 WATER SHED CRANBERRY CREEK  
 DISTRICT TOWN COUNTY RALEIGH  
 QUADRANGLE BECKLEY 7 1/2'  
 SURFACE OWNER NEW RIVER COMPANY ACREAGE 61.571  
 OIL & GAS ROYALTY OWNER NEW RIVER COMPANY LEASE ACREAGE 60.571  
 LEASE NO. 31143  
 PROPOSED WORK: DRILL  CONVERT \_\_\_\_\_ DRILL DEEPER \_\_\_\_\_ REDRILL \_\_\_\_\_ FRACTURE OR STIMULATE \_\_\_\_\_ PLUG OFF OLD FORMATION \_\_\_\_\_ PERFORATE NEW FORMATION \_\_\_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_  
 PLUG AND ABANDON \_\_\_\_\_ CLEAN OUT AND REPLUG \_\_\_\_\_  
 TARGET FORMATION RAVENCLIFF ESTIMATED DEPTH 1389  
 WELL OPERATOR PEAKE OPERATING Co. DESIGNATED AGENT FLOYD WILCOX  
 ADDRESS 201 DUNBAR OFFICE PARK DUNBAR, WEST VIRGINIA ADDRESS 201 DUNBAR OFFICE PARK DUNBAR, WEST VIRGINIA

09/19/2014

# Peake Operating Company

8100591P  
201 Dunbar  
Office Park  
Dunbar, WV 25064  
Tel: (304) 766-6133

## DRILLING REPORT

New River #9-AR Well  
Raleigh County, WV.

Spud Date: June 21, 1982 - 9:00 am.

- June 22 - Drilled to 11' and set 12 3/4" conductor pipe. Used 3 sacks of Portland cement. At 150' hit water; 1 gallon per minute. Hit coal seam at 180' and changed bits to 8 3/4" to reduce the hole. Drilling at 500' as of 8:00 am with 12 1/4" bit.
- June 23 - Drilled to 911' using 8-3/4" bit. Ran 900.50' of 7". Cemented with 150 sacks of 50/50 POZ and 100 sacks of Neat cement. Set plug at 869.45' and waiting for cement to set.
- June 24 - Samples showed Ravencliff as follows: top at 1264'  
Gas check at 1270' - smell of gas, too small to measure.  
Tripped the hole at 1323' to change 6 1/2" bits. Gas check at 1323' showed 116/10 2" W = 452,000 cu. ft.  
Base of Ravencliff at 1346'. Gas check at 1352', after 25 minutes showed 4/10 in 6/38" W = 900,000 cu. ft.  
At 8:00 am drilling at 1577' with a 6 1/2" bit.
- June 25 - Sample showed Blue Maxton 1797-1830'. Gas check at 1798' and 1832' showed 4/10 in 6/38" W = 900,000 cu. ft. Top of Big Lime at 2431'. Gas check at 2440' 20/10 2" M = 696,000 cu. ft. Gas check at 2590' showed 696,000. At 8:00 a.m. drilling at 2590' with 6-1/2" bit.
- June 26 - Drilled to TD at 2661'. Gas check at 2661' showed 20/10 2" M = 696,000 cu. ft. Scheduled Schlumberger for 2:30 pm., on location at 1:30 pm. Began logging at 3:30 pm. Ran Gamma-ray, Density, Temperature, and Induction logs. Logs showed Ravencliff from 1259' to 1342'. 30' less than 2.50 porosity. Blue Maxton shaled out. Big Lime porosity gone. Released Schlumberger at 10:30 pm. Shut well in. Did not run 4 1/2". Will run tubing with Tally rig next week. Keen shut down for the weekend.
- July 17 - Ran 2-3/8" tubing to 1350 plus feet. Took 3 hours to run tubing, gas gauged 660,000 through 2-3/8" at end of job. Rock pressure 165#.
- Aug. 17 - Opened well at 1:15 pm. Tubing 175 psi, head 160 psi.

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Office of Oil and Gas  
WV Dept. of Environmental Protection  
*[Signature]*

09/19/2014

*Plugged back to 1371' then 4 1/2"*

Feb. 15 - Ran 1371' of 4 1/2" tubing. Cemented with 45 sacks of RFC, 25#  
1983 cela flakes and 5 bbl's of gel.

Feb. 17 - McCullough on location at 8:00 am. Logged hole twice because  
of bad tool on first log run. Bond log showed TD at 1356'  
and 100% bond from TD to 950'. Swabbed 500' of fluid off  
well and perforated the Ravencliff as follows:

1307- 1312	2 holes/ft.	10 holes
1312-1316	4 holes/ft.	16 holes
1316-1317	2 holes/ft.	2 holes
1320-1321	2 holes/ft.	2 holes
1321-1323	4 holes/ft.	8 holes
1323-1324	2 holes/ft.	2 holes
1324-1326	4 holes/ft.	8 holes
1326-1328	2 holes/ft.	4 holes
		<u>52 holes total</u>

All shots fired. Swabbed hole dry and shut well in. Well  
making some gas after perforating.

Feb. 18 - Rock pressure 150#. Fraced--got in 270 bbls. water. Used 15,000#  
of 80/100 sand; 45,000# 20/50; Volume 8#/gal. Average treating  
pressure 1700#. No breakdown pressure. Went right ahead treating  
all the way through. Used 7 bbls. water/min. 484,000# nitrogen.  
Instant shut-in pressure 1500#; after 15 minutes 1300#.

Feb. 20 - After open 45 hours, making 793,000 cu. ft. Head had 65#.  
Blowing slight mist.

Mar. 31 - Tubing pressure 165#, head pressure 167#.

May 3 - Tubing pressure 170#, head pressure 175#. At 3:00 pm. no water,  
little sand.

Sept. 28 - Tubing pressure 172#. Head pressure 172#. Well blew lots of sand.  
Open 1 hour. 86/10 M 2" = 1,443,000 cu. ft.

Received

AUG 13 1981 *[Signature]*

Office of Oil and Gas  
WV Dept. of Environmental Protection



8100591A

WW-4A  
Revised 6-07

1) Date: \_\_\_\_\_  
2) Operator's Well Number  
NEW RIVER AR-9  
3) API Well No.: 47 - 081 - 0591

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL

4) Surface Owner(s) to be served:  
(a) Name New River Hardwoods  
Address PO BOX 7290  
Beckley WV 25801  
(b) Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_  
6) Inspector Gary Kennedy  
Address PO Box 268  
Nimiyz, WV 25978  
Telephone 304 382 8402

5) (a) Coal Operator  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
(b) Coal Owner(s) with Declaration  
Name Boone East Development Co  
Address Po Box 261  
Julian Wv 25529  
(c) Coal Lessee with Declaration  
Name \_\_\_\_\_  
Address \_\_\_\_\_

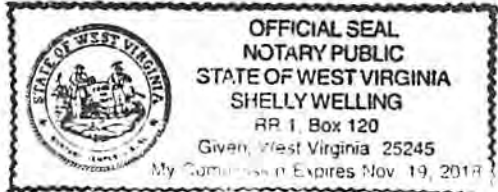
TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.

Well Operator Expo Resources (PA), LLC  
By: Randall States  
Its: Production Superintendent  
Address PO. BOX 8,  
Ravenswood WV 26164  
Telephone 304 272 5371



Received

Subscribed and sworn before me this 7 day of Aug 2014  
Shelly Welling Notary Public  
My Commission Expires 11/19/18

Office of Oil and Gas  
WV Dept. of Environmental Protection

Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

09/19/2014

7006 2760 0005 3354 4202

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Sent To: Boone East Development Co ARR  
 Street, Apt. No., or PO Box No.: PO Box 261 AAH  
 City, State, ZIP+4: Sealton WV 25529 AR22

PS Form 3800, August 2006 See Reverse for Instructions

7006 2760 0005 3354 4196

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Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 6.90



Sent To: New River Handwoods ARRV  
 Street, Apt. No., or PO Box No.: PO Box 7290  
 City, State, ZIP+4: Beckley WV 25801

PS Form 3800, August 2006 See Reverse for Instructions

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Office of Oil and Gas  
WV Dept. of Environmental Protection

09/19/2014

8100591A

WW-9  
Rev. 5/08

Page \_\_\_\_\_ of \_\_\_\_\_  
API Number 47 - 081 - 0591  
Operator's Well No. New River AR-9

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM  
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator Name EXCO Resources (PA), LLC OP Code 307860

Watershed Cranberry Creek Quadrangle Beckley 7 1/2

Elevation 2356' County Raleigh District Town

Description of anticipated Pit Waste: Cement, Gel, H2O

Will a synthetic liner be used in the pit? Steel Pit *WJK*

Proposed Disposal Method For Treated Pit Wastes:  
 Land Application  
 Underground Injection ( UIC Permit Number \_\_\_\_\_ )  
 Reuse (at API Number \_\_\_\_\_ )  
 Off Site Disposal (Supply form WW-9 for disposal location)  
 Other (Explain Haul by EPC to Marietta, OH *Steel pit*)

Proposed Work For Which Pit Will Be Used:  
 Drilling  Swabbing  
 Workover  Plugging  
 Other (Explain \_\_\_\_\_)

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature *Randall D. Sheets*

Company Official (Typed Name) Randall sheets

Company Official Title Production Superintendent

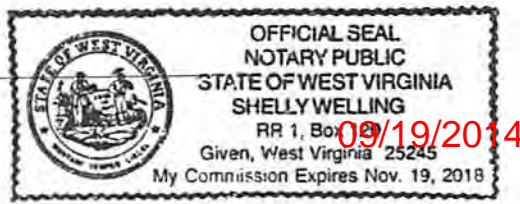
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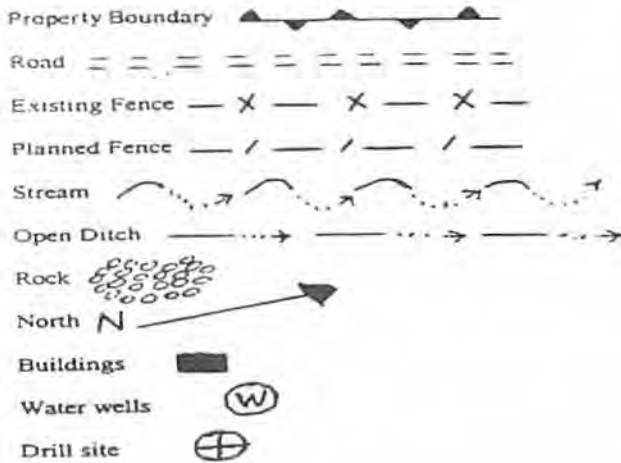
Subscribed and sworn before me this 7 day of Aug, 20 14

*Shelly Welling* Notary Public

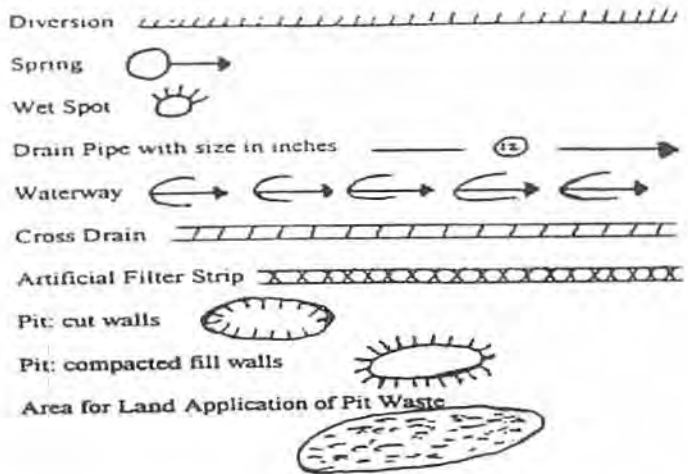
AUG 13 2014  
Office of Oil and Gas  
WV Dept. of Environmental Protection

My commission expires 11/19/18





LEGEND



Proposed Revegetation Treatment: Acres Disturbed 1 Prevegetation pH \_\_\_\_\_

Lime 2 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) 500 lbs/acre (500 lbs minimum)

Mulch 2 Tons/acre

Seed Mixtures

Seed Type	Area I lbs/acre	Area II lbs/acre
KY 31 fescue	40	Same as area one
Alsike Clover	6	
Annual Ryed	12	

Attach:  
Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: *Amy Kennedy*

Comments: \_\_\_\_\_

Title: Inspector Date: 8/11/14

Field Reviewed?  Yes  No

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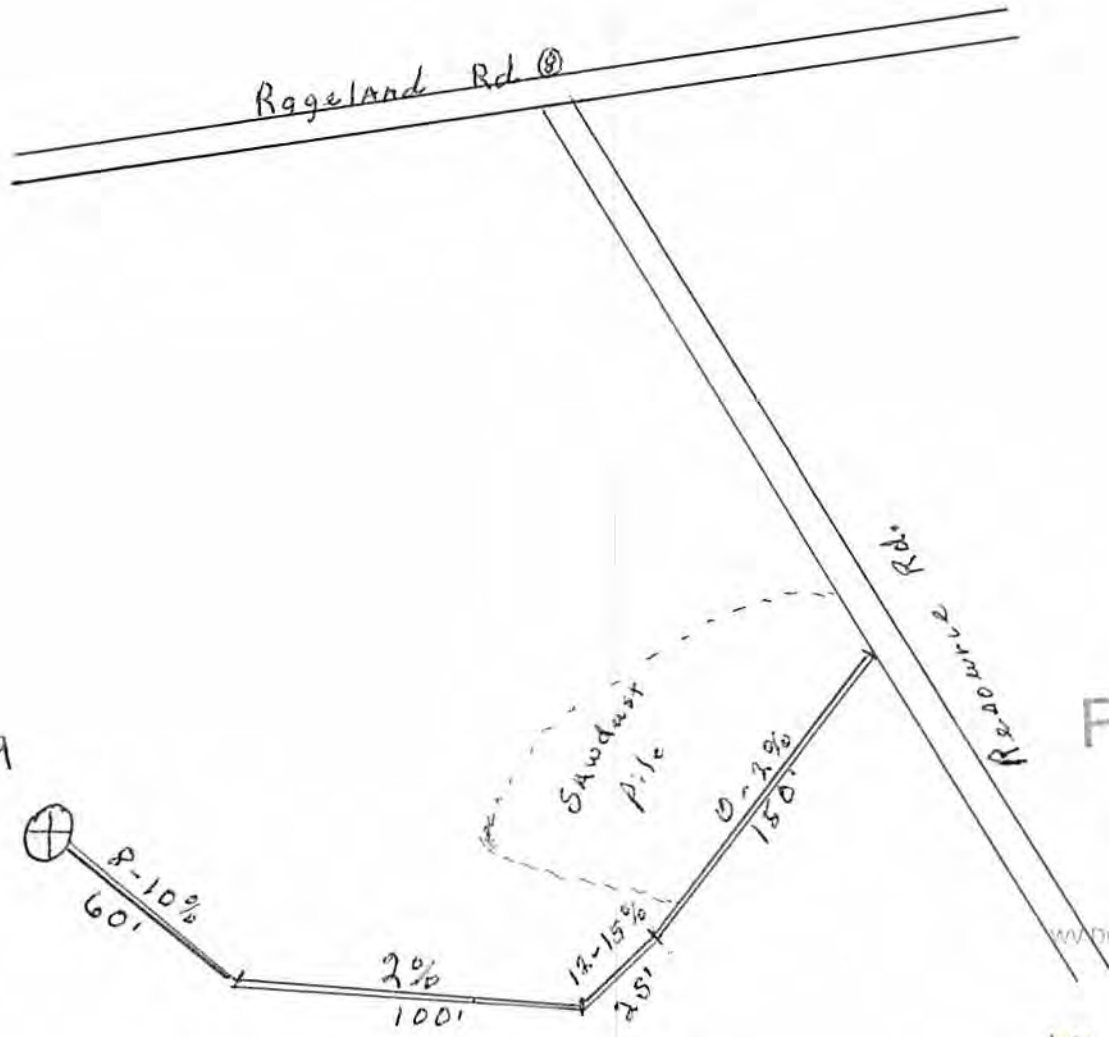
AUG 13 2014

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WV Dept. of Environmental Protection

WW-9

New River AR-9

HT 081 0591



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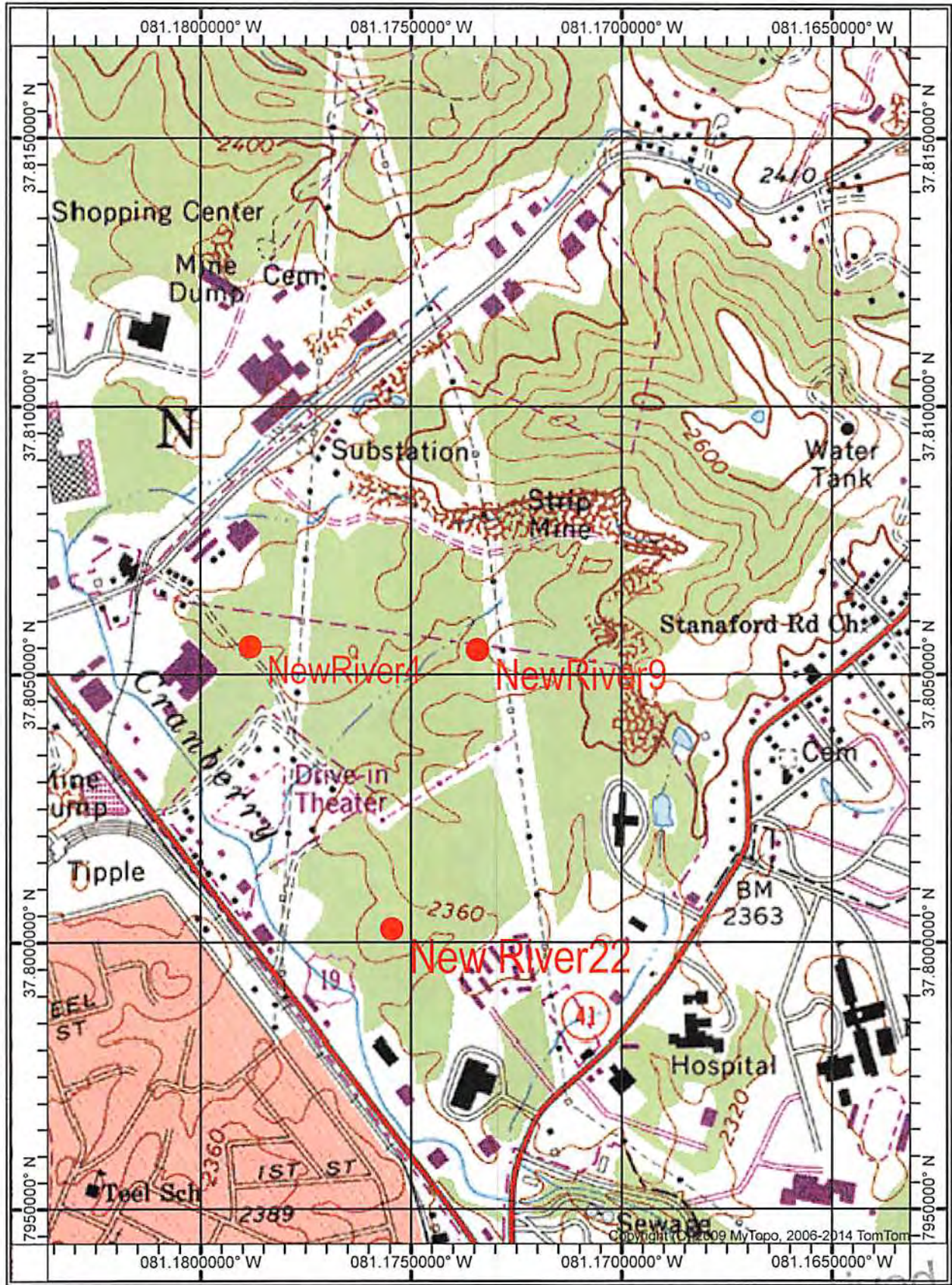
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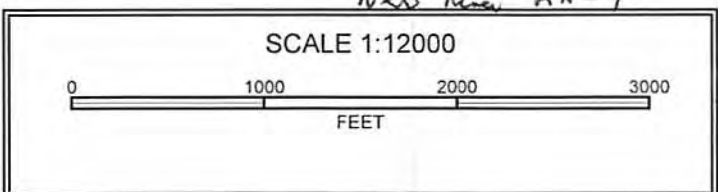
*WJK*

09/19/2014

8100591P



New River AR-9



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Office of Oil and Gas  
WV Dept. of Environmental Protection  
09/19/2014

WW-7  
8-30-06



West Virginia Department of Environmental Protection  
Office of Oil and Gas  
WELL LOCATION FORM: GPS

API: 47-081-0591 WELL NO.: AR-9  
FARM NAME: New River  
RESPONSIBLE PARTY NAME: Exco Resources  
COUNTY: Raleigh DISTRICT: Town  
QUADRANGLE: Berkley 7.5  
SURFACE OWNER: New River Hardwoods  
ROYALTY OWNER: \_\_\_\_\_  
UTM GPS NORTHING: 4184243.2  
UTM GPS EASTING: 484730.4 GPS ELEVATION: 2356

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

- Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) - meters.
- Accuracy to Datum - 3.05 meters
- Data Collection Method:  
Survey grade GPS  : Post Processed Differential \_\_\_\_\_  
Real-Time Differential   
Mapping Grade GPS \_\_\_\_\_ : Post Processed Differential \_\_\_\_\_  
Real-Time Differential \_\_\_\_\_

4. Letter size copy of the topography map showing the well location. I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.

Richard W. Stebbins Production Superintendent 8/7/14  
Signature Title Date

Received  
SEP 18 2014  
Office of Oil and Gas  
WV Dept. of Environmental Protection